

SUPPORT INFORMATION TO MINING FORM MR-1300
APPLICATION TO MODIFY A MINE OPERATING PERMIT AND/OR RECLAMATION PLAN

The information provided in this document is organized in the same manner as the SC Department of Health and Environmental Controls’ application for a Mine Operating Permit – MR-400. This is not intended to be the official signed application (Form MR-1300 is the signed form for mine permit modifications) but only to serve as vehicle to present information in a logical and familiar format for review by SCDHEC staff.

I. APPLICANT INFORMATION

Specific information on company, addresses, telephone numbers refer to Form MR-1300.

Name of company personnel and their title to be the contact for official business and

correspondence: Clint Roberts, Manager Environmental Compliance

Ownership of land:

A. Name of landowner: Westbury Tract owned by Giant Cement Company – purchased in 2008
The mine permit area for the Westbury tract consists of a 78.3 acre parcel within 80.1 acre tract that is identified by
Dorchester County tax map # TMS 026-00-00-013.

Landowner's Address: Same as shown on MR-1300
Street and PO Box City

State Zip Code Telephone Number

B. Date lease became effective : NA

II.GENERAL CHARACTERISTICS OF MINE:

1. Material(s) to be mined: Limestone – Marl

2. Mining Method

A. List equipment to be used for mining and provide a brief description as to how the mine will be operated.
This modification will not change the mining method or basic equipment currently used in mining. The description of mining shown in the current mine permit under MINE/PIT CHARACTERIZATION is accurate and applicable to mining the Westbury Tract.

B. Will there be a process plant located at the mine site within the boundary of the permitted area? If so, please provide a brief description of the plant equipment and function of the plant.
This modification will not change processing of the limestone-marl currently mined. The description of processing shown in the current mine permit under PROCESSING PLANT LOCATION ON MINE SITE is accurate and applicable to the Westbury Tract.

3. Do you anticipate blasting as part of the mining operation? Yes x No

4. Has this site been mined in the past? If so, please indicate the present condition of the land.

The Westbury Tract has not been mined in the past.

5. What is the expected maximum depth of this mine? Provide any addition information about the final depth of the mine that would be useful to the Department. (Ex. Final depth of pit will be level to adjacent road, elevation above Mean Sea Level (MSL)).

For all mining within the permitted area, this modification is requesting to change the reference point for the depth of mining FROM depth below ground surface TO elevation with mean sea level as reference. Mining will not extend below (minus) *-35 feet mean sea level*.

All mining has been and will continue to be confined to Santee Limestone’s Cross Member and the overlying unconsolidated sands and clays of Pliocene/Pleistocene age. The limestone phosphatic aquitard separating the Cross Member from the underlying Moultrie Member within the Santee Limestone Formation has been and will continue as the mine floor.

III. DETERMINATION OF PERMITTED ACREAGE, AFFECTED ACREAGE AND RECLAMATION BOND

1. Total acres for which permit is being requested:

All land is owned by Giant Cement Company. There is no leased land in the mine permit. The Westbury Tract is owned by Giant and the modification to add this tract will increase the total permitted area by an additional 78.4 acres.

2. Acres in the mine permit will be change as described below:

Acres added by modification: Affected 71.1 Buffer 7.2 Fut. Res. 0.0 Permitted 78.3

Current Acres under Permit: Affected 1,023.9 Buffer 358.9 Fut. Res. 63.9 Permitted 1,446.7

New Permit Acres w/mod: Affected 1,095.0 Buffer 366.1 Fut. Res. 63.9 Permitted 1,525.0

Under Part III: PERMITTED LAND of the mine permit document for the Harleyville Quarry, the AFFECTED LAND for the quarry is broken out into West Side Property and East Side Property. This modification will only increase the affected acres for the East Side Property. Consequently, the East Side Property affected acres will increase from 526.3 to 597.4.

3. Check acreage to be bonded:

Current bond is a blanket bond and covers the below referenced mines in the amount of \$554,975.00.

Applicant may submit a reclamation cost estimate for mines that will affect greater than 25 acres. Estimate should be based upon requirements in Regulation 89-20 B.

A reclamation cost estimate was provided to establish the existing reclamation bond. With ongoing reclamation activity and because the primary reclamation practice will be to establish the pit as a lake, it is not anticipated the addition of the Westbury tract will increase the estimated cost of reclamation.

4. Will this operation be covered by a blanket bond? If so, please list your company's other permitted mining operations in South Carolina giving mine names, permit numbers and state the present reclamation bond amount on file with this Department.

Giant Cement Company’s mines covered by blanket bond are: Harleyville Quarry, PN I-00120; Washie Road Sand Mine, PN I-01163; and, St. Mathews Mine; PN I-01429.

5. Number of years for which this permit is requested. The requested number of years the permit is requested should coincide with the Schedule of Reclamation as proposed by the applicant in the RECLAMATION PLAN, Form MR-500. Requesting to increase the permit expiration date an additional 30 years

Based upon affected acres under permit, increase in acres to be affected with this modification and an approximate mining rate of 13 acres per year, Giant Cement Company has approximate 50 years of minable reserves as of the date of this permit modification. Giant requests the estimated expiration date be extended from December 31, 2030 to December 31, 2060.

IV.PROTECTION OF NATURAL RESOURCES*

1. Will there be a waste water treatment system at your mine site? X Yes No

All stormwater discharges will be routed in to existing pit and routed through existing NPDES permitted outfalls, NPDES Permit No. SC0022667.

2. Will there be a point source discharge from your plant or mine requiring an NPDES Permit? If no, provide information as to how stormwater and groundwater will be managed.

X Yes No

All stormwater discharges will be routed in to existing pit and routed through existing NPDES permitted outfalls, NPDES Permit No. SC0022667.

3. Will there be air contaminant emissions from your plant or mine requiring an Air Quality Permit?

x Yes No Yes, but associated with the cement manufacturing plant.

4. Do you anticipate pumping of groundwater? If yes, describe. x Yes No

Groundwater seepage from the Westbury tract will be route to existing groundwater/stormwarter collection sump(s) and either used for dust suppression or discharged through permitted outfalls under NPDES Permit No. SC0022667. Mining the Westbury tract is not anticipated to create adverse groundwater impacts to adjacent property owners because: 1) “Hutto Lake” is currently provided water by Giant to maintain a stable pool level in the lake. 2) Domestic wells in the area withdraw groundwater from the Santee Limestone’s Moultrie Member or below. The Moultrie member is below active mining in the Harleyville Quarry and is separated from the Cross Member by an aquitard. 3) The area around Westbury Tract is rural with the closest resident/structure approximately 1,200 feet west of the Westbury Tract. Previous mining was much closer than 1,200 feet without any reported groundwater impacts to domestic wells.

Current mine permit conditions require groundwater level measurements once per month. Giant requests the frequency of groundwater level measurements change from *once per month* to *once per quarter* with submittal of the information to DHEC continuing at its current frequency of once per quarter. There is sufficient groundwater data available from the past 10+ years of groundwater monitoring by Giant and DHEC that reducing the frequency of the groundwater level measurement to once per quarter will not adversely affect Giant’s or DHEC’s ability to either anticipate impacts to drinking water wells or determine if a well allegedly has been impacted from mine dewatering.

5. Will jurisdictional wetlands be affected, filled or altered in any fashion that will require a Section 404 Dredge and Fill Permit? ☐ Yes ☒ No

A wetland investigation was conducted by Palmetto Environmental Consulting, Inc. (PEC) to determine if wetlands are located on the Westbury Tract. In summary, PEC personnel did not observe wetlands or other waters of the US within the proposed mine permit area. Four data points were recorded in low-lying areas, but did not exhibit all three characteristics of wetlands. A request for *Jurisdictional Determination* has been submitted to the USACE (SAC# is 2009-00737-2JY). At the time of this mine permit submittal, US Army Corps of Engineers personnel has conducted a site visit and concurs with PEC’s assessment of no wetlands. The Department will be provided a copy of the determination when issued by the USACE.

There are several issues noted. First, there are two manmade ponds, each approximately 0.10 acre in area that will be affected by mining. In PEC’s opinion, these two ponds are not USACE jurisdictional waters. Additionally, USACE has also provided a verbal concurrence, with written confirmation forthcoming, that these ponds are not jurisdictional waters. Second, a review of past aerial photography, soil maps and topographic maps indicate wetlands or other waters may have previously existed on the Westbury Tract. However, this was prior to Giant Cement Company’s purchase of the property in 2008. Existing conditions do not indicate wetlands with the exception of the extreme southwest corner of the property. However, this area has been excluded from the project area as submitted in the JD request documentation. Third, soil maps indicate the location of wetlands in the extreme southwest corner of the property within the existing woodlands. **The mine permit area deviates away from the property line as shown on the mine map (and JD request documentation) and traces along the edge of the woodlands/agricultural fields to REMOVE any potential wetlands from the mine permit area.** Giant will not disturb the woodlands and will confine mining to the agriculture fields and grassland areas. The seventy-five foot (75’) buffer will extend from the woodland into the agricultural field.

6. Are there any known cultural or historic sites located within the proposed area to be permitted? ☐ Yes ☒ No

The Westbury tract is not located near significant water sources and the original soils, as depicted in the soil maps, are not well drained soils that would be attractive as camp sites by pre-historic people. Giant understands the existing mine permit condition number 1 in Part X: Additional Terms and Conditions of the mine permit and will comply.

7. Will any part of the permitted area be used as a solid waste disposal site? If no, describe how waste, trash, scrap metal material, garbage will be handled. ☐ Yes ☒ No

8. Describe the wildlife or freshwater, estuarine or marine fisheries in the area of the mining operation. Also provide information about any ponds and/or streams that may be located in the proposed permitted area.

The Westbury Tract presently consists of approximately 50 acres of agriculture, 28 acres of grassland and residential houses; and 2 – 3 acres of woodlands. The woodlands contain wetlands that are associated with a small undefined drainage for Hutto Lake. There are 2 manmade ponds located on the Westbury tract that total approximately 0.20 acre in area.

An unnamed stream flowing north towards Four Holes Swamps was previously diverted around the northern perimeter of Westbury tract and presently flows into the Quarry. With the mining of the Westbury tract, the stream will flow into the Quarry on the western boundary of Westbury Tract and Giant property.

9. State the land cover and land uses on the permitted land area and contiguous tracts of land to the permitted land area.

The present land uses and land cover for the Westbury tract is as described in Question 8. Land uses contiguous to the Westbury Tract are: north and east of Westbury tract is mine land owned by Giant Cement Company; southeast of Westbury is woodland; south Westbury is woodlands and agricultural; west of Westbury is grassland and Hutto Lake used for recreational purposes.

10. Describe measures to be taken to insure against (1) substantial deposits of sediment in neighboring streams, rivers lakes or ponds; (2) landslides; (3) acid water formation and discharge. Attach any supporting documents (engineering designs, calculations, sediment & erosion control plan, setbacks, geotechnical information, acid prediction test etc.) to this application.

- 1) All stormwater runoff from the active mine area of the Westbury tract will be route to existing water collection sump(s) and either used for dust suppression or discharged through permitted outfalls under NPDES Permit No. SC0022667. Minor sediment from stormwater flow from the outside slope of the earthen berm along the western side of the Westbury tract will be controlled with vegetation, sediment fencing and the 75 foot undisturbed buffer.
- 2) The limestone being mined is competent and can be mined to the permitted depth without danger of slope failure. The sand and clay overburden, approximately 20 to 40 feet thick, will be sloped to at least the angle of repose (approximately 1:1 slope) during mining and the 40 - 60 feet of limestone will remain vertical. At the start of final reclamation, the overburden will be sloped to the required 3:1 slope. There are examples of existing highwalls remaining stable for decades; consequently, there are no indications of slope instability with current mining practices.
- 3) Limestone does not create acid mine conditions.

V. SAFETY

1. Describe methods to be used during the time the mine operating permit is active to prevent physical hazards to persons and to any neighboring dwelling, house, school, church, hospital, commercial or industrial building or public road. If applicable, provide the zoning designation for the property to permitted.

The Westbury Tract is in a rural setting where the surrounding land uses consist of agriculture, silviculture, limited recreational and mining. Adjacent property contains several homes and other buildings, but at the closest point, will be approximately 1,200 feet away from the pit.

Hutto Lake Road terminates at the property line with Westbury Tract. At the beginning of mining, the end of Hutto Lake Road will be barricaded with vegetated earthen berms and signs will be posted. Currently, there is an existing barbed wire fence around the perimeter of the Westbury Tract in poor condition that will be re-constructed as a further barrier to unauthorized entry.

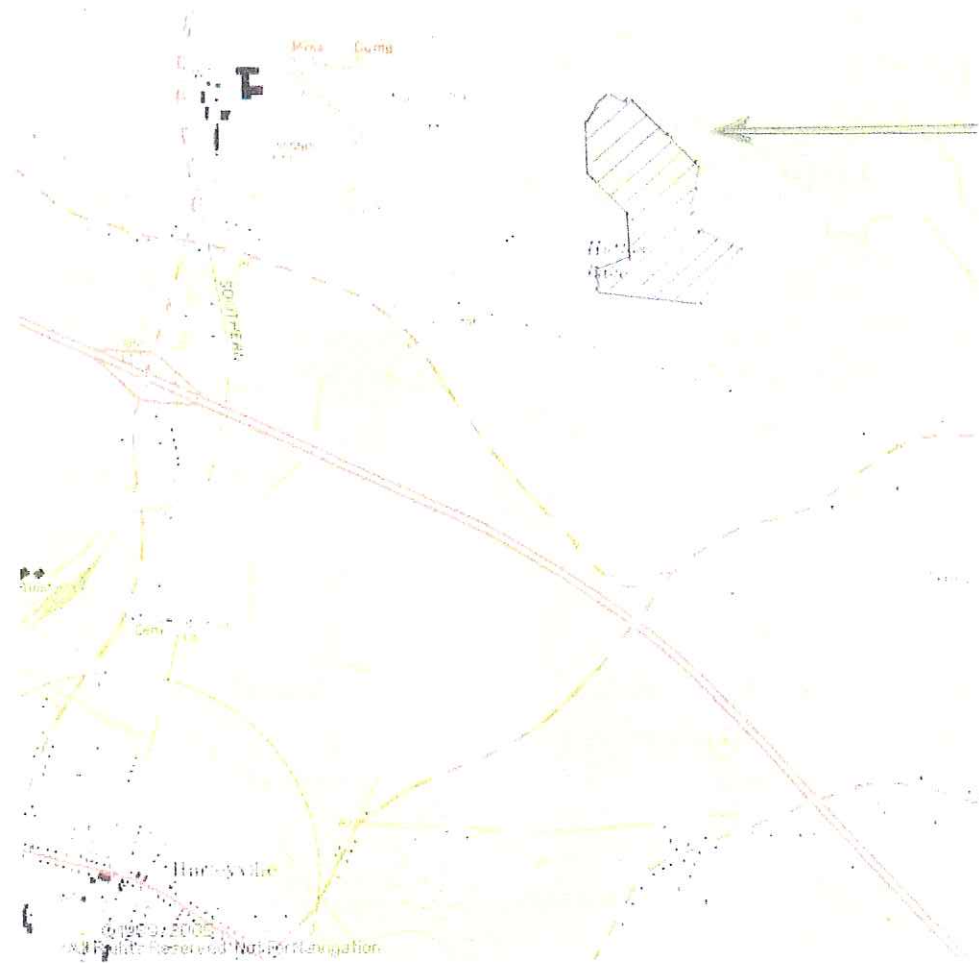
Westbury tract is not zoned by Dorchester County.

2. Describe methods to be used to prevent an adverse effect on the purposes of a publicly- owned park, publicly-owned forest, or publicly-owned recreation area. If any of these facilities are within one (1) mile of the proposed affected property, please locate on mine location map and the submitted U.S.G.S topographic map for this application.

There are no publicly- owned park, publicly-owned forest, or publicly-owned recreation areas within 1 mile of the Westbury Tract. Francis Beidler Forest and Four Holes Swamp are adjacent to Giant Cement Company property to the north. However, the Westbury Tract is located on the opposite side of mine property and the mining of Westbury Tract will not have an impact on this important wetland habitat. Furthermore, Francis Beidler Forest is not a publicly owned park, forest or recreational area.

3. Describe measures to be taken for screening the operation from view from public highways, public parks or residential areas.

This site is not within visual range of public highways or parks. A small residential/recreation area consisting of several buildings is located 1,200 feet or greater from the Westbury tract. Because of distance, existing vegetation and vegetated earthen berms along the western side of the pit, the mining operation will not be visible.



Westbury Tract
Location
78.3 Acres

USGS Harleyville Topographic Map
Scale 1" = 2,000'

Giant Cement Company
Mine Permit Modification
Westbury Tract

SEGMENT 1

±158.2 Acres
EXISTING ACTIVE MINE PIT

SEGMENT 10

±0.05 Acres (Buffer)
±27.5 Acres (Affected)
±27.6 Acres (Total Permitted)

SEGMENT 5

±90.2 Acres
UNDER RECLAMATION
OPEN WATER

SEGMENT 6

±39.2 Acres

SEGMENT 11

±1.1 Acres (Buffer)
±16.5 Acres (Affected)
±17.6 Acres (Total Permitted)

GIANT CEMENT COMPANY

(WESTBURY TRACT)
(SECTION 10-12)
±78.4 Acres (Total Permitted)

SEGMENT 7

±22.0 Acres

GIANT CEMENT COMPANY
(BISHOP TRACT)
(SECTION 6-9)

SEGMENT 12

±6.0 Acres (Buffer)
±27.1 Acres (Affected)
±33.1 Acres (Total Permitted)

Mine Map

Westbury Tract

Prepared for

GIANT CEMENT COMPANY

SC Hwy. 453 and Seven Mile Road (S-18-50)
Harleyville ~ Dorchester County ~ South Carolina



No.	Revision	Date	By

Project No.: 09-05 Approved by: RCK Drawn by: CAD

Sheet No. 1 of 1 Date: 7/20/09

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